

Agricultural  
Improvement Council  
for England and Wales

FIFTH REPORT  
1959-62

*LONDON*

HER MAJESTY'S STATIONERY OFFICE  
1963

## MEMBERSHIP AND TERMS OF REFERENCE

The members of the Council during the period June 1959 to June 1962 were:

- Sir John Winnifrith, K.C.B. (*Chairman*)  
Sir Frank Engledow, C.M.G., M.A., B.Sc., F.R.S. (*Vice-Chairman*)  
Captain J. F. Bomford, M.C.  
Harold Collison, Esq., C.B.E.  
Professor M. McG. Cooper, B.Agr.Sc., B.Litt., Dip.Rur.Econ., F.R.S.E.  
(Since May, 1961)  
E. G. Cox, Esq., T.D., D.Sc., F.Inst.P., F.R.I.C., F.R.S. (Since Sept.,  
1960)  
John Edgar, Esq.  
Professor Sir Joseph Hutchinson, C.M.G., Sc.D., F.R.S. (Up to March,  
1961)  
K. W. T. Jones, Esq., B.A.  
Professor K. Mather, C.B.E., D.Sc., F.R.S. (Up to Sept., 1960)  
J. W. S. Mount, Esq.  
The Lord Netherthorpe, LL.D., B.Sc.  
His Grace the Duke of Northumberland, K.G.  
H. J. Rathbone, Esq., O.B.E., F.L.A.S.  
F. Rayns, Esq., C.B.E., M.A., Sc.D.  
A. Robertson, Esq., D.Sc. (Since May, 1961)  
Sir William Slater, K.B.E., D.Sc., F.R.I.C., F.R.S. (Up to June, 1960)  
Professor P. T. Thomas, B.Sc., Ph.D.  
C. Thornber, Esq.  
Professor T. Wallace, C.B.E., M.C., D.Sc., F.R.I.C., F.R.S., V.M.H.  
Professor E. G. White, D.Sc., Ph.D., F.R.C.V.S.  
R. E. Taylor, Esq., B.Sc. (Agric.), Ph.D. } *Joint Secretaries*  
Mrs. J. B. E. Wells }

The Council's terms of reference are:

"To keep under review the progress of research with a view to ensuring that promising results are applied as rapidly as possible to the problems of agriculture and horticulture and that these and any other new technical methods are incorporated into ordinary commercial practice; to advise from time to time concerning agricultural and horticultural problems which appear to require scientific investigation; and to advise generally as to the lines on which a policy designed to raise the technical standing of agricultural and horticultural production can best be implemented."

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needed to make a fair assessment of the breed, including the part to be played by the Experimental Husbandry Farms.

6. A list of the members and terms of reference of the Council's main committees is at Appendix A and a chart showing the complete committee structure is at Appendix B.

7. The Council again acknowledges with gratitude its debt to those farmers and horticulturists, scientists, members of the advisory services and others with specialized knowledge who have so willingly assisted with the work of its committees and sub-committees.

#### **Review of Problems Requiring Investigation**

8. Mention has been made in previous Reports of the systematic review of the industry's technical problems undertaken by the Joint Committee of the Agricultural Improvement Councils for England and Wales and for Scotland and the Agricultural Research Council. By 1960 the Committee had completed its review of the research problems of the main agricultural commodities, and had dealt with Milk; Pigs; Poultry; Sheep; Wool; Barley; Oats; Wheat; Grassland; Potatoes; Sugar Beet; Peas; Vegetables and Fruit under Glass and Vegetables in the Open; Apples; Cherries; Pears and Plums; Soft Fruit; Bulbs; Flowers; Beans; Forage Crops (including Root Crops and Brassicas for Stock Feed). Action on meat was deferred pending a decision on setting up the proposed meat research institute.

9. The Joint Committee was created in 1942 to survey the gaps which then existed in agricultural research and to draw up a blue-print for the post-war period. With these objectives in the main achieved, and with the pattern of research turning to consolidation rather than expansion, the Council in 1960 accepted the Joint Committee's own suggestion to suspend its meetings. The Committee was, however, kept in existence to consider any matter which might be referred to it from time to time by any of the three Councils. The Improvement Councils themselves assumed the task of drawing the attention of the Agricultural Research Council to any change in emphasis which seemed to be necessary in the research programme to meet the present and long-term needs of the industry. The Research Council continues to evaluate priorities in fundamental scientific research.

10. **Committee on Sheep Recording and Progeny Testing.** The Agricultural Improvement Councils for England Wales and for Scotland appointed a Committee in May, 1959, to review the position of sheep recording and progeny testing, and to recommend what further developments were desirable.

11. The Committee's report was received by the two Councils, and published on 30th October, 1961. The Committee considered that prolificacy, milking capacity, growth rate and carcass quality were of prime importance in lowland flocks, while fleece weight and quality, hardiness and prolificacy were the most important in hill flocks. But it warned against trying to improve more than one factor at a time. The Committee suggested that individual sheep recording, both in commercial and stud flocks, is an important aid to management, and that progeny testing or some other form of family selection must be adopted to improve the characteristics that are less readily handed down. The need for a central organization was expressed. The recommendations are being considered in consultation with interested national bodies.

## PART II

### EXPERIMENTAL WORK UNDER THE COUNCIL'S GUIDANCE

12. The Council has been responsible for advising the Ministry on the work carried out by the National Agricultural Advisory Service at the Experimental Farms and Stations. It has also had an oversight of the experimental work undertaken in the regions on commercial farms.

#### Dissemination of results

13. The Council has always recognized the need to ensure that valuable results of research reached the farmer and horticulturist as soon as possible, providing the dangers of acting unreservedly on interim results were guarded against. It therefore welcomed the decision to introduce, in 1960, the first of a new series of booklets entitled "Experimental Husbandry Farms and Experimental Horticulture Stations: Progress Report." The new publication contained a selection of results from recent experiments, and short notes on other experimental work and on new items of interest. It was written in a popular style to attract a wider public than that obtained for "Experimental Husbandry" and "Experimental Horticulture." These two periodicals are more scientific in nature, and contain full accounts of completed experiments including all necessary supporting data. The second progress report was issued in 1961 and, judging from the very favourable reception given to both numbers, the Council is satisfied that they fulfil a definite need.

14. The Council is glad to note that each experimental centre publishes an annual report, issued free of charge. This serves to inform the farmer or horticulturist of the current experimental work in which he is specially interested.

15. Because of all the information available in the various publications mentioned above, it has been unnecessary to include in this Report details of experimental work in progress; a full bibliography is given in Appendix D.

16. **Experimental Husbandry Farms.** No new farms have been acquired during the period covered by this Report, and such capital as has been available has been devoted to improving existing centres.

17. **Experimental Horticulture Stations.** The only outstanding item in the original scheme for experimental horticulture centres is the proposed station in East Anglia. The Council considers that the acquisition of this station should have high priority. The Council has been glad to note that it is now possible to move from the stage of horticultural demonstration in Wales to that of experiment. Under this development, the Bryn Adda demonstration station, which is not well suited for experiments, will be closed and the Cleppa Park station will be developed as the experimental horticulture station for Wales.

## PART III

### PROBLEMS CONSIDERED BY THE COUNCIL

18. The following paragraphs give an account of the more important problems discussed by the Council during the period covered by this Report.

## LIVESTOCK

19. **Beef production.** The Council's Agriculture Committee has given much thought to the problem of improving the supply of home produced beef. In the early discussions the Committee considered likely methods of increasing the number of beef calves from dairy farms without promoting an undue increase in milk supply, but latterly concentrated on means of improving efficiency of meat production without necessarily increasing output. It found that there was a wastage of potential beef calves, particularly due to mortality among calves in transit from commercial dairy herds. Improvement could come only from intensified advice on calf rearing and from better marketing arrangements.

20. The Committee had hoped to study the seasonal relationship between the marketing of home-produced beef from the beef animal and the release of imported chilled and frozen beef. They found to their regret, however, that the returns for home produced meat did not differentiate between meat from culls from the dairy herd and that from animals reared and fattened specifically for beef production. Such information as was available did not indicate that there was a serious clash between the peaks of home production and the release of imported meat on to the market.

21. On beef production in general, the Committee felt that, by improved methods of breeding, organized rearing, disposal and feeding of calves, appreciable economies could be achieved, and made the following recommendations:

- (a) Retention of calves either by breeders or specialist rearers until they are at least early weaned.
- (b) Improved marketing of store cattle by better organized sales, sales by weight and elimination of small uneven lots.
- (c) Encouragement of organized schemes for cattle weighing.
- (d) Further research into the production and utilization of silage and hay for beef.

22. The Committee concluded that disorderliness—lack of system—at every stage of beef production from calf supply to carcass marketing was the salient characteristic of British beef production and its fundamental weakness. There was, moreover, only very limited knowledge about the actual performance of beef animals and the desirable standards at the several stages of growth, as well as on the requirements of the market.

23. The Committee felt that the introduction of fresh legislation was not appropriate in this instance and that basically it was up to the farmers themselves to effect any real improvement in methods of beef production by adoption of more orderly systems.

24. **Calf subsidy.** The Council considered the desirability of a change in the calf subsidy to encourage farmers to send their calves to organized markets. There were objections to a straightforward reduction in the qualifying age of eight months, but it was felt that the concession for hill rearers should be extended, and this had the support of the Hill Farming Advisory Committee. The Council recommended that the existing subsidiary concession for hill calves of six months old should include those born in May, and were pleased to note that this was accepted and is now in operation.

25. **Hypomagnesaemia.** The Committee on the Technical Problems of Welsh Agriculture drew attention to the need for increased effort to try to solve the



problem of the metabolic disorder, hypomagnesaemia. A Ministry conference was held in the autumn of 1959, which showed that a good deal of work was in progress and pointed to the protection afforded by the use of calcined magnesite as a feed additive or as a top dressing of pastures. A number of field trials are now in operation involving both beef and dairy herds.

**26. Synthetic oestrogens.** It was stated in the Council's last Report that the A.R.C. was enquiring into the possible risk of contamination from synthetic oestrogens excreted by animals in yards and on pastures. The Council is now informed that the careful use of synthetic oestrogens presents little danger but it should be realized that since they largely pass through animals unchanged particular care is necessary when stock is kept under intensive conditions. The Council endorsed a recommendation that further advice should be sought on the risk to the consumers of meat from poultry that had been treated with synthetic oestrogens. The question was therefore referred to the Ministry of Health Committee on Medical and Nutritional Aspects of Food Policy, which has now stated that there seems no reason for the time being to believe that the present use of oestrogens in poultry offers any risk to those consuming the meat.

**27. Antibiotics.** Before the issue of new model labels in 1961 the Council was consulted about the advisability of allowing the inclusion of antibiotics in feeding stuffs for laying poultry. In view of the potential risk to human health through the emergence of resistant strains of pathogens and the limited contribution antibiotics can make to egg production, the Council considered that there should be no relaxation in labelling requirements. The Council welcomed the publication, in May, 1962, of the report of the joint A.R.C./M.R.C. Committee on antibiotics in animal feeding.

**28. Liveweight recording.** At the request of the Agriculture Committee the N.A.A.S. carried out a number of pilot studies, using mobile weighbridges, to ascertain the demand for information about the live weights of cattle. The response was very encouraging and a number of local schemes have been organized by farmers themselves. The Council is convinced of the need for records of this kind and therefore welcomes the decision to establish a national beef cattle recording scheme as soon as finances permit.

## CROPS

**29. Grassland Utilization.** One of the recommendations of the Caine Committee, which reported in 1958 (Cmd. 547), was that more research was needed on grassland and green fodder crop production and utilization. The Council was invited to undertake responsibility for keeping developments in this sphere under review, and it delegated the task to the Agriculture Committee, which was already considering a range of allied topics.

**30.** The Agriculture Committee concluded that the main immediate problem was not to sponsor more research but rather to persuade farmers to use existing knowledge. The Committee felt that farmers were not producing enough keep from their grass, nor using it effectively despite N.A.A.S. efforts. One way of encouragement would be to institute a simple form of grassland recording, with some form of test to show each farmer where he stood in relation to his neighbours. The test would be based on a minimum number of factors such as the

stocking rate, the quantity of milk produced, the acreage of forage crops grown, the quantity of concentrates bought and the quantity of home concentrates used. The N.A.A.S. are encouraging the adoption of such recording schemes on a local basis, as part of their campaign for the better recording of the farm business as a whole. The N.A.A.S. take the view that advice about grass cannot be divorced from general farm management advice and that, if general management problems are tackled, an improvement in grass will automatically follow.

**31. Potato root eelworm.** After considering reports prepared by the Plant Pathology Laboratory in association with the A.R.C., the Council's Agriculture Committee concluded that there were no grounds for complacency over the danger from potato root eelworm. Even in newer potato-growing areas eelworm is building up despite all efforts to prevent it, and much more needs to be known about this pest. It may be that too close rotations are aggravating the problem. Control would be greatly advanced if a suitable nematicide could be produced that could be applied economically, but the best prospects at the present time are in the breeding of resistant varieties and the results so far have been encouraging. The N.A.A.S. have taken steps to standardize the recording of results of inspections so that an objective study of the problem can be made.

## POULTRY

**32.** Attention was drawn in the previous Report to the fundamental changes taking place in the organization of the poultry industry. Changes continue to take place rapidly, broiler production has expanded and large units are also being formed for egg production. Thus some problems which seemed important a few years ago have assumed negligible importance against a swiftly changing background; similarly other problems, once considered unimportant, have come to the fore. The Council's Poultry Committee has concentrated on enquiries about environment and has noted with satisfaction that the A.R.C. is sponsoring fundamental work on avian physiology. Big strides have been made in the type of housing, with the trend towards controlled environmental conditions.

**33.** As the Ministry had reached the conclusion that the time had come to transfer to the industry responsibility for running the Poultry Testing Stations and the Poultry Stock Improvement Plan, the Poultry Committee was asked in March, 1961, for its views. The Committee considered that (a) there was a need to promote the continued existence of the breeder of pure bred strains, and facilities should be made available for progeny testing his stock, including pure strains cross-mated; (b) random sample tests of the commercial laying pullet should be developed; and (c) assuming that the disease control provisions would be continued, the Plan should be altered so as to give some form of recognition solely to those breeders submitting stock for testing.

## HORTICULTURE

**34. Tomatoes.** Tomato growers have expressed anxiety about the competitive position of their industry in the face of imports and rising costs. The Council therefore recommended to the A.R.C. that research should be intensified on what it considered to be the three most important lines which would lead to more economic production, namely controlled environmental studies, the development of improved varieties, and virus control. All three lines are being actively

studied by the Glasshouse Crops Research Institute, and the National Institute of Agricultural Engineering has been devoting a considerable effort to research on the control of the glasshouse environment. The Experimental Horticulture Stations have always devoted a good deal of their glasshouse resources to tomato growing, e.g. in trying out new varieties raised at the research institutes and in determining the optimum conditions for growth. Efforts are, however, being made, in conjunction with the research institutes, to step up the work on environmental problems at the stations.

**35. Chrysanthemums.** Now that more is known about the viruses affecting chrysanthemums a nuclear stock scheme for this crop would go a long way towards cleaning up stocks. The Council would therefore welcome the introduction of a limited accreditation scheme with the object of producing stocks free from aspermy virus.

**36. Cucumbers.** Glasshouse red spider mite on cucumbers has been causing increasing concern to growers in some areas because certain strains of mite have developed resistance to spray treatments. Investigations with fluorescent tracers have established that the spray is in fact often insufficiently applied, but more knowledge is needed of the habits of the mites, the sources of infestation and the biochemical nature of resistance. The problem is being given priority at the Glasshouse Crops Research Institute, but quick results cannot be expected.

**37. Mushrooms.** The growers of this valuable crop, fully alive to their problems, presented a memorandum to the Council setting out those which in their opinion need investigation. One of their difficulties is that new ideas introduced from abroad do not in this country always give expected results. Facilities for mushroom work have been made available at two of the Experimental Horticulture Stations, where, in collaboration with the Glasshouse Crops Research Institute, experiments are now in progress on some of the more important problems.

**38. Isles of Scilly.** A request was received from the flower growers of the Isles of Scilly for an investigation into the packing and transit of their flowers (mainly *Soleil d'Or* narcissi). Serious deterioration can occur in the condition of the flowers in transit by sea to the mainland and thence by rail mainly to Covent Garden. Arrangements were made for representatives of Ditton Laboratory and the Glasshouse Crops Research Institute to undertake a preliminary investigation of the problems to which it is hoped an early solution will be found.

## LAND MANAGEMENT

**39. Packing sheds.** With the increasing trend towards mechanization and larger units, a good deal of interest is being shown in the structure, design and layout of horticultural packing sheds. As the Agricultural Land Service is already able to give adequate advice on any structural problem, attention is being focussed through N.A.A.S. work study officers on the sequence of operations that occur within the packhouse. The potential challenge from foreign competition is such that every effort must be made to ensure that none but the best methods of handling and packing are employed. The Council is in touch with the Horticultural Marketing Council, which is vitally interested in these problems.

**40. Drainage of the farm homestead.** The recent legislation precluding farmers from discharging, without consultation and consent of local authorities and river boards, farm effluent into sewers, rivers and ditches has made necessary

the dissemination of the most up to date advice on methods of disposal. A preliminary report prepared by the Agricultural Land Service has been considered by the Buildings and Services Committee, and investigations are still proceeding.

**41. Survey of potential horticultural areas.** Reference to this survey was made in the last Report of the Council. Surveys of areas which might be suitable for horticultural products have now been completed for Wales, the West Midlands, the South Western and South Eastern regions. Work is in progress on the Eastern region.

**42. Shelter research.** The Shelter Research Planning Group continues to co-ordinate work on this subject. The survey at Durham of existing shelter belts and their effects on local climate, etc., has been completed and the report is being studied. A progress report has been received from Aberystwyth, where the effect of topography on shelter is being studied. The project at Bangor on the effect of shelter on an established hill flock is now well advanced. In order to encourage the dissemination of information in connection with shelter research work the Group held a symposium at Aberystwyth in April, 1962, which was attended by all those actively engaged in shelter research.

### MISCELLANEOUS PROBLEMS

**43. Agricultural aviation.** The European Agricultural Aviation Centre (whose Headquarters is at the Hague) held an international conference at Cranfield in 1959. The conference demonstrated the real determination of scientists working in a number of related fields to solve the practical problems of agricultural aviation. It is unlikely that the use of aircraft will revolutionize farming practices but they will have an increasingly important part to play. The Council appreciates the work of the Centre and, having recommended support, was glad to note that the U.K. had become a member from 1st January, 1962.

**44. Field drainage.** An attempt has been made to list the field drainage problems in a similar form to the "commodity papers" produced by the Joint A.I.Cs./A.R.C. Committee (see paragraph 8). This has proved difficult because drainage is not a commodity and the paper (which was considered by a special meeting of representatives of the Joint Committee, the A.R.C. and the Ministry's Land Drainage Division) served to show the difficulty in precisely defining the fundamental problems requiring investigation. The Council nevertheless hopes that the paper which has been forwarded to the A.R.C. will stimulate further research and investigation. In this connection the Council notes with pleasure the Ministry's extension of investigational work aimed at bridging the gap between the scientific studies and commercial field practice and considers it worthy of every encouragement.

**45. Ditching.** The maintenance of adequate ditches and the facilities available for the construction of new ditches have been very much in the mind of the Council in recent years. The replacement of open channels by closed drains is one solution to the problem of neglected ditches, provided conditions are suitable, but improved mechanical methods of cleaning and maintaining are even more important. The Ministry's Land Drainage Division has comprehensive information about the available ditching machines. Great improvements have been made in recent years in the design and production of drainage machines particularly the small machines for ditch maintenance, and a wide range of machines are now available both for maintenance operations and for digging.

However, there would appear to be still room for some further improvement and it is hoped that the National Institute of Agricultural Engineering and others will press on with their efforts to develop a cheap but effective tractor-powered ditching machine.

*We have the honour to be,*

*Sir, .*

*Your obedient Servants,*

(signed) A. J. D. Winniffrith (*Chairman*)  
F. L. Engledow (*Vice-Chairman*)  
J. F. Bomford  
H. Collison  
M. McG. Cooper  
E.G. Cox  
J. Edgar  
K. W. T. Jones  
J. W. S. Mount  
Netherthorpe  
Northumberland  
H. J. Rathbone  
F. Rayns  
A. Robertson  
P. T. Thomas  
C. Thornber  
T. Wallace  
E. G. White  
R. E. Taylor  
J. B. E. Wells

} *Joint*  
} *Secretaries*

12th June, 1962.

## APPENDIX A

### COMMITTEES OF THE COUNCIL AND THE JOINT A.I.C.s/A.R.C. COMMITTEE

#### 1. Agriculture Committee

Sir Frank Engledow (*Chairman*)

Mr. A. J. Brookes	Mr. R. Merricks
Professor M. McG. Cooper	Mr. H. J. Rathbone
Professor W. Ellison	Dr. F. Rayns
Professor J. D. Ivins	Mr. I. G. Reid
Mr. K. W. T. Jones	Mr. J. W. Reid
Mr. G. E. Limb	Dr. H. G. Sanders

Mr. P. J. Macfarlan (*Convener*)

#### *Terms of Reference*

"To advise the Council on the problems of agriculture (including farm management, farming organization, husbandry practices, and farming systems) needing further scientific investigation; to keep under review the progress of research into matters concerning the industry and to advise on the practical application of the results of research; and to advise on any other matters referred to them."

#### 2. Buildings and Services Committee

Mr. H. J. Rathbone (*Chairman*)

Mr. W. G. Benoy	Mr. G. D. Lockie
Mr. J. T. Beresford	Dr. H. L. Penman
Dr. E. C. Childs	Mr. H. E. G. Read
Mr. H. Collison	The Hon. M. W. Ridley
Mr. N. Dean	Mr. F. Russell-Wood
Dr. R. E. Frampton	Mr. E. D. T. Jourdain

Mr. C. Robinson (*Convener*)

#### *Terms of Reference*

"To keep under review the progress of research in land management subjects with a view to seeing that results are made known among those responsible for the management of land and to encourage the use of improved technical methods and the adoption of new and improved designs, and to advise the Council from time to time on land management subjects which appear to require scientific investigation and, generally, as to the lines on which policy designed to raise the technical and economic standards of land management can best be implemented."

### 3. Horticulture Committee

Captain J. F. Bomford (*Chairman*)

Dr. R. de Brath Ashworth	Mr. J. W. S. Mount
Dr. R. H. Barnes	Mr. J. Ritsema
Mr. A. H. Hiller	Mr. F. W. Toovey
Professor J. P. Hudson	

Mr. P. H. Brown (*Convener*)

#### *Terms of Reference*

"To advise the Council on the problems of the horticulture industry needing further scientific investigation; to keep under review the progress of research into matters concerning the industry and to advise on the practical application of the results of research; and to advise on any other matters referred to them."

### 4. Poultry Committee

Mr. C. Thornber (*Chairman*)

Mr. H. R. Finn	Mrs. P. M. Mussellwhite
Dr. R. F. Gordon	Dr. R. Osborne
Mr. G. Guttridge	Mr. A. R. Pendry
Lt.-Cdr. A. I. Hughes	Mr. J. E. Robinson
Dr. S. K. Kon	Mr. J. Sutton
Mr. A. E. Maddison	Dr. H. Temperton

Dr. R. E. Coles (*Convener*)

#### *Terms of Reference*

"To advise the Council on the problems of the poultry industry needing further scientific investigation; to keep under review the progress of research into matters concerning the industry and to advise on the practical application of the results of research; to give scientific advice on the Poultry Stock Improvement Plan and other measures designed to improve the quality of poultry stock; and to advise on any other matters referred to them."

### 5. Experimental Husbandry Committee

Dr. F. Rayns (*Chairman*)

<i>A.I.C. Representatives</i>	<i>N.A.A.S. Representatives</i>
Mr. J. Edgar	Mr. W. E. Jones
Mr. K. W. T. Jones	Mr. W. Longrigg
Mr. G. E. Limb	Dr. D. H. Robinson

*A.R.C. Representatives*

Mr. J. D. Alston  
Professor R. G. Baskett  
Mr. F. C. Bawden

Dr. R. F. Gordon } *Chairmen of Sub-*  
Dr. H. G. Sanders } *Committees ex officio*

Mr. P. J. Macfarlan (*Convener*)

#### *Terms of Reference*

"To receive and consider proposals for investigational work by the National Agricultural Advisory Service on Experimental Husbandry Farms and elsewhere; to make recommendations to the Ministry as to the work to be undertaken, and as to the allocation of the facilities available at the several Experimental Husbandry Farms, and to report accordingly to the A.I.C.; to advise the

Ministry on the suitability of properties for use as Experimental Husbandry Farms; and to receive periodic reports on the conduct of the investigational work within its purview."

#### 6. Experimental Horticulture Committee

Professor T. Wallace (*Chairman*)

*A.I.C. Representatives*

Captain J. F. Bomford

Mr. J. W. S. Mount

*A.R.C. Representatives*

Professor O. V. S. Heath

Dr. J. Philp

*N.A.A.S. Representatives*

Mr. O. G. Dorey

Mr. W. E. Jones

*Agricultural Economist*

Dr. L. G. Bennett

Mr. P. J. Macfarlan (*Convener*)

#### *Terms of Reference*

"To receive and consider proposals for investigational work by the National Agricultural Advisory Service on Experimental Horticulture Stations and elsewhere; to make recommendations to the Ministry as to the work to be undertaken, and as to the allocation of the facilities available at the several Experimental Horticulture Stations, and to report accordingly to the A.I.C.; to advise the Ministry on the suitability of properties for use as Experimental Horticulture Stations; and to receive and consider periodic reports on the conduct of the investigational work within its purview."

#### 7. Joint Committee of the Agricultural Improvement Councils and the Agricultural Research Council (in abeyance)

##### *Membership*

Dr. A. B. Stewart (*Chairman*)

*A.I.C. for England and Wales*

Dr. F. Rayns

*A.R.C.*

Dr. R. E. Glover

Dr. H. G. Sanders

*A.I.C. for Scotland*

Mr. A. R. Wannop

Mr. W. J. Wright

Mrs. J. B. E. Wells

Dr. R. E. Taylor

} *Joint Secretaries*

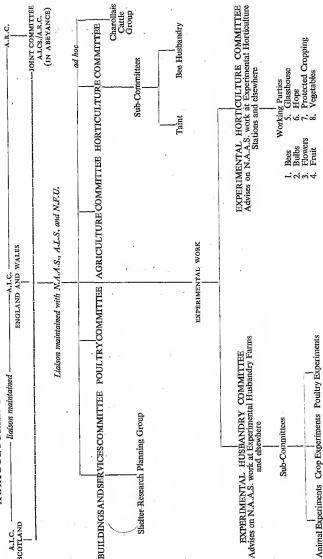
##### *Terms of Reference*

1. "To review from time to time the technical problems of agriculture and horticulture;
2. "To recommend priorities and the importance which should be attached to particular problems;
3. "To review existing research in each particular field in relation to the needs of the industry and advise the Councils as to its adequacy;
4. "To consider any other matters which may be referred to it from time to time by the three Councils."



# APPENDIX B

## AGRICULTURAL IMPROVEMENT COUNCIL FOR ENGLAND AND WALES



# APPENDIX C

## EXPERIMENTAL HUSBANDRY FARMS

					<i>County</i>
Bridget's Farm, Martyr Worthy, Winchester	...	...	...		Hants
Boxworth Farm, Cambridge	...	...	...	...	Cambridge
Drayton Farm, Stratford-on-Avon	...	...	...	...	Warwicks
Gleadthorpe Farm, Welbeck Colliery Village, Mansfield				...	Notts
Great House Farm, Helmshore, Rossendale	...	...	...		Lancs
High Mowthorpe Farm, Duggleby, Malton	...	...	...		Yorks
Kirton Farm, Kirton, Boston	...	...	...	...	Lincs
Liscombe Farm, Dulverton	...	...	...	...	Somerset
Pwlpeiran Farm, Cwmystwyth, Aberystwyth	...	...	...		Cardigan
Rosemaund Farm, Preston Wynne, Hereford	...	...	...		Hereford
Terrington Farm, Terrington St. Clement, King's Lynn	...	...	...		Norfolk
Trawscoed Farm, Trawscoed, Aberystwyth	...	...	...		Cardigan

## EXPERIMENTAL HORTICULTURE STATIONS

					<i>County</i>
Efford Experimental Horticulture Station, Lymington	...	...			Hants
Fairfield Experimental Horticulture Station, Kirkham, Preston	...	...			Lancs
Lee Valley Experimental Horticulture Station, Hoddesdon	...	...			Herts
Luddington Experimental Horticulture Station, Stratford-on-Avon	...	...			Warwicks
National Fruit Trials, Brogdale Farm, Faversham	...	...			Kent
Rosewarne Experimental Horticulture Station, Camborne	...	...			Cornwall
Stockbridge House Experimental Horticulture Station, Cawood, Selby	...	...	...	...	Yorks
Cleppa Park Experimental Horticulture Station, Newport	...	...			Monmouthshire

# APPENDIX D

## BIBLIOGRAPHY OF PUBLICATIONS

- "Experimental Husbandry Farms and Experimental Horticulture Stations: Progress Reports", 1960, 1961 and 1962 ... .. H.M.S.O.
- "Experimental Husbandry", Nos. 1-8 ... .. H.M.S.O.
- "Experimental Horticulture", Nos. 1-7 ... .. H.M.S.O.

### *Experimental Husbandry Experimental Horticulture*

<i>Farms</i>	<i>Stations</i>	} Copies of Annual Reports may be obtained free of charge on application to the Directors at the addresses given in Appendix C.
Bridget's	Efford	
Boxworth	Fairfield	
Drayton	Lee Valley	
Gleadthorpe	Luddington	
Great House	Rosewarne	
High Mowthorpe	Stockbridge House	
Liscombe		
Pwllpeiran		
Rosemaund		
Terrington		
Trawscoed		

- "Agriculture", the Journal of the Ministry of Agriculture (monthly). H.M.S.O.
- Advisory Leaflets and Bulletins, as shown in Government Publications Sectional List No. 1. ... .. H.M.S.O.